

REMARKS/ARGUMENTS

Claims 13 and 19-23 have been canceled. Claims 1-3, 5, 11, 12 and 14-18 are pending in this application. Independent claims 1, 17 and 18 have been amended to include the limitations previously stated in canceled claim 13 and to overcome the rejections based on the prior art cited by the Examiner. No new matter was added. Thus, Applicants respectfully submit that the present application is in condition for allowance.

I. Claim Rejections Based on 35 USC §112, second paragraph

In the Office Action, the Examiner rejected claims 16 and 17 as being indefinite.

Claim 16 has been amended to require the coating to contain the non-photosensitive, light-absorbing compound. No new matter was added. For instance, see page 5, lines 32-34, of the present application, as filed.

Claim 17 has been amended to require the perforated mask to be disposed on a side of the film over the coating. No new matter was added. For instance, see page 5, lines 5-11 and 23-31, of the present application, as filed.

Removal of the indefinite rejections of claims 16 and 17 is respectfully requested.

II. Brief Description of Amendments to Independent Claims 1, 17 and 18

The preamble of claim 1 has been amended to "A light-sensitive film composite sensitive to light emissions from a screen of a monitor such as a television screen at room temperature". No new matter was added. For example, the present application discloses the use of photosensitive films "for application to a small region of a monitor such as a television screen". (See page 1, lines 15-17.) In addition, the present application on page 4, lines 9-17, states that:

“... The photochromic compound preferably has a low tendency to thermochromism (colour changes resulting from heat-induced isomerisation). The photochromic compound preferably strongly absorbs light from one or more of the RGB guns in a conventional television. A preferred compound is the fulgide Aberchrome 670 (Trade Mark of Aberchromics Ltd.) (CAS Registry No. 94856-25-4), which exhibits a rapid colour change (is rapidly bleached) by exposure to light of wavelength around 530 nm (corresponding to the green gun).”

Thus, the present application clearly discloses a light-sensitive film composite that is sensitive to light emissions from a screen of a monitor, such as, a television screen at room temperature.

Claim 1 requires a plastics film formed from a first polymeric material that contains a filler and that has diffuse reflective properties, and claim 1 includes the limitations previously stated in canceled claim 13 requiring the film to have a coating on one side and be metallized on an opposite side thereof. The coating is made from a transparent second polymeric material and a photosensitive organic compound that is sensitive to light in the UV to visible range. No new matter was added. See claims 1 and 13 as previously pending, and see page 1, lines 7-13, of the present application, as filed.

Claim 1 has also been amended to require the filler to be a particulate filler or a gaseous filler and to have a refractive index differing from a refractive index of the first polymeric material to confer diffuse reflective properties on the film at a wavelength characteristic of the photosensitive organic compound. No new matter was added. See the present application on page 2, line 29, to page 3 line 12.

Independent claim 17 is directed to an information storage device and includes substantially all the limitations of claim 1 discussed above including the limitations previously stated by canceled claim 13. In addition, claim 17 requires a perforated mask. No new matter was added. See page 5, lines 5-11 and 23-31, of the present application, as filed.

The preamble of claim 18 has been amended similar to that of claim 1. In addition, the film is required to have a coating on one side and a metallized layer on an opposite side as previously stated in canceled claim 13.

III. §102(b) & §103(a) Claim Rejections Not Applied to Claim 13

In the Office Action, various references and combination of references were applied to the claims to reject the claims under 35 USC §102(b) and §103(a). The following rejections include those that were not applied to claim 13.

- The Examiner rejects claims 1-3, 5, 12 and 14-16 under 35 USC §102(b) as being anticipated by JP 09-211779;
- The Examiner rejects claims 1-3, 5, 12, 14-16 and 18 under 35 USC §103(a) as being obvious over JP 09-211779 in view of U.S. Patent No. 6,001,463 issued to Shibahara et al.;
- The Examiner rejects claims 1-3, 5, 11, 12 and 14-18 under 35 USC §103(a) as being obvious over U.S. Patent No. 5,790,169 issued to Hohenacker and JP 09-211779 in view of U.S. Patent No. 6,001,463 issued to Shibahara et al.;
- The Examiner rejects claims 1-3, 5, 11, 12 and 14-18 under 35 USC §103(a) as being obvious over U.S. Patent No. 5,790,169 issued to Hohenacker and JP 09-211779 in view of U.S. Patent No. 6,001,463 issued to Shibahara et al. and in further view of International Publication No. WO 91/12139;
- The Examiner rejects claims 1, 2, 12 and 14-16 under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,581,090 issued to Goudjil;
- The Examiner rejects claims 1, 12 and 14-16 under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,248,584 issued to Miura et al.;
- The Examiner rejects claims 1, 12 and 14-16 under 35 USC §102(b) as being anticipated by U.S. Patent No. 4,954,380 issued to Kanome et al.;
- The Examiner rejects claims 1, 2, 12 and 14-16 under 35 USC §103(a) as being obvious over U.S. Patent No. 5,914,197 issued to Goudjil in view of U.S. Patent No. 3,656,247 issued to Bushnell et al.; and
- The Examiner rejects claims 1, 2, 12 and 14-16 under 35 USC §103(a) as being obvious over U.S. Patent No. 5,914,197 issued to Goudjil in view of U.S. Patent No. 3,656,247 issued to Bushnell et al. and further in view of U.S. Patent No. 5,208,132 issued to Kamada et al..

As stated above, the limitations previously required by claim 13 has been incorporated into each of the independent claims, 1, 17 and 18. Each requires a plastic film that is coated on one side and metallized on an opposite side. Thus, for the same reasons that the Examiner determined claim 13 to be patentable over the above cited references and combination of references, Applicants respectfully submit that all the pending claims are patentable over the cited references and combination of references.

At least for this reason, Applicants submit that the above stated rejections have been overcome. Reconsideration and removal of the above stated rejections is respectfully requested.

The pending claims are also patentable over the cited references for additional reasons. To this end, the primary reference cited by the Examiner, JP 09-211779, discloses a light-sensitive recording medium in which a photochromic material is held in a resin matrix which may be coated onto a white polyester support base. The specific examples utilize stilbene-type dyes in a polystyrene resin matrix. The object of JP '779 is to produce an image recording medium that is not sensitive to UV and visible light so that the film can only record images under special conditions and the recorded image will not deteriorate or decolorize when further exposed to UV or visible light. This is achieved by the photochromic compound being able to undergo an isomeric transition only when the resin matrix is heated to above its glass transition temperature. Once an image is recorded at the elevated temperature, the recorded image can be erased only by further light irradiation at elevated temperature, thereby providing a light-stable record until such time as the further irradiation at elevated temperature takes place.

In contrast, the present invention as claimed in claim 1 requires the film to contain a filler that confers diffuse reflective properties on the film, which reflects light at a wavelength characteristic of the photosensitive organic compound. This enables the film laminate to be

read after exposure. The film must diffuse most of the specific light which characterizes the photosensitive material to enable a distinction to be made between the exposed and unexposed areas. This is necessary when using a laminate to monitor light emissions from the screen of a monitor such as a television screen, because such monitoring may be continued over several hours with the photosensitive material changing continuously over that time period. Such a problem is not discussed in JP '799, which relates to photosensitive films for a completely different end use. The film composite of the present invention is intended to be used at room temperature, and changes that occur only at elevated temperatures would be totally unsuitable for the end use in question.

Claim 1, as amended, also requires the side of the film opposite the light-sensitive coating to be metallized. This is to prevent the photosensitive material in the coating from reacting to ambient light passing through the rear of the filled film. The metallized surface reflects almost all the light hitting the rear surface of the composite. See page 4, line 33, to page 5 line 4, of the present application.

Thus, for these additional reasons, independent claim 1 is submitted as being patentable over the JP '799 reference. Independent claim 17 of the present invention is submitted as being patentable over JP '799 for the same reasons.

Independent claim 18 requires the photosensitive organic compound to be a fulgide. It reacts quickly with green light emitted by a green gun of a monitor, for instance, of a television. The titania filler is utilized in combination with the photosensitive fulgide for its diffuse reflective properties. This combination is not disclosed by JP '799 nor is the special reason for such a combination. Thus, for these additional reasons, claim 18 of the present application is submitted as being patentable over the primary reference, JP '799.

Combinations of JP '799 with the Shibahara patent, Hohenacker patent and WO 91/12139 fail to fairly teach the present invention as claimed for the same reasons stated

above for JP '799. The other cited references are submitted as being less relevant than those discussed above. None discloses a film that is filled with a filler having diffuse reflective properties selected for the characteristic wavelength of the photochromatic material contained in a coating located on one side of the film and that has a metallized layer on an opposite side of the film to prevent light from passing into the coating from the rear of the composite.

Therefore, for all the reasons discussed above, Applicants respectfully submit that independent claims 1, 17 and 18 and all of the claims dependent therefrom are patentable over the above cited references and combination of references. Reconsideration and removal of the rejections is respectfully requested.

IV. Additional Claim Rejections

In the Office Action, the Examiner rejects claims 1 and 12-16 under 35 USC §103(a) as being obvious over JP 62-070850.

In addition, the Examiner rejects claims 1, 2, 12-16 under 35 USC §103(a) as being obvious over JP 62-070850 in view of U.S. Patent No. 5,681,420 issued to Yamane.

JP '850 relates to photoengraving. The Yamane patent relates to a thermal printing method.

In contrast, claim 1 of the present application is directed to a light-sensitive film composite sensitive to light emissions from a screen of a monitor, such as a television screen at room temperature. The light-sensitive film composite requires a plastics film formed of a first polymeric material containing a filler and having diffuse reflective properties. A coating is located on one side of the film and is comprised of a transparent second polymeric material and a photosensitive organic compound sensitive to light in the UV to visible range. An opposite side of the film is metallized. The filler is required to be a particulate or gaseous filler and have a refractive index differing from a refractive index of the first polymeric

material to confer diffuse reflective properties on the film at a wavelength characteristic of the photosensitive organic compound.

It is clear that neither of the above cited references discloses a light-sensitive film composite as required by claim 1, as amended, of the present application.

Therefore, Applicants submit that independent claim 1 is patentable and non-obvious over the JP '850 reference and Yamane patent. Claims 2, 12, and 14-16 depend from claim 1, and are submitted as being patentable for the same reasons.

V. Conclusion

Applicants have made a significant advance in light-sensitive film composites sensitive to light emissions from a screen of a monitor, such as a television screen at room temperature. Thus, the invention is meritorious.

In view of the above amendments and remarks, Applicants respectfully submit that the rejections have been overcome and that the present application is in condition for allowance. Thus, a favorable action on the merits is therefore requested.

Please charge any deficiency or credit any overpayment for entering this Amendment to our deposit account no. 08-3040.

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